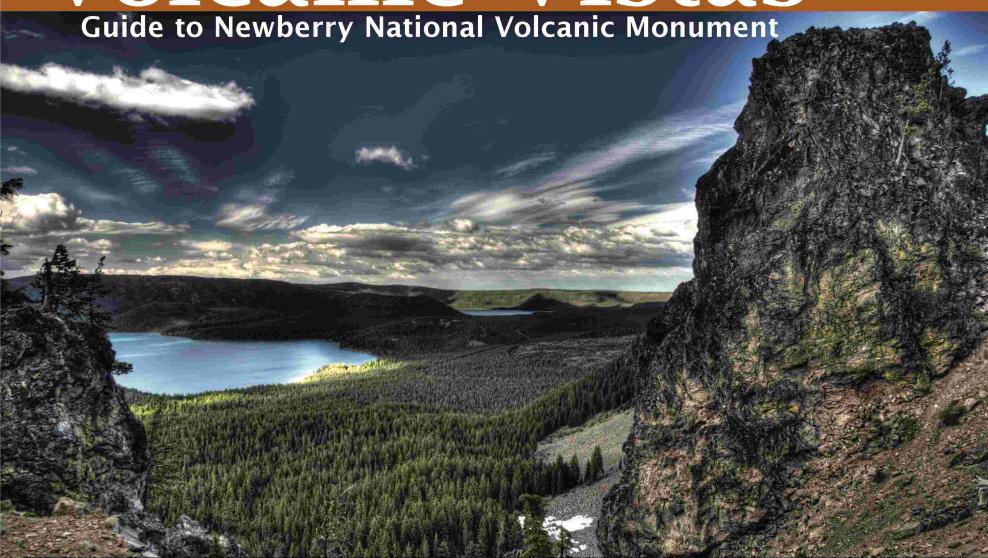
Volcanic Vistas



This dramatic view into the caldera of the Cascades' largest volcano exemplifies the beauty and uniqueness of **Newberry National Volcanic Monument**. Taken from the Paulina Peak trail, the image shows Paulina Lake (one of the deepest lakes in Oregon with depth reaching 249 feet) in the foreground, East Lake in the distance, and the edge of the stunning Big Obsidian Flow (youngest lava flow in Oregon at 1,300 years) pushing through the lush forest in between. Up the trail at the **Paulina Peak Viewpoint** (7,984 feet), visitors are treated with the biggest view in Oregon accessible by car. On a clear day, the Cascade Range is visible extending into California (Mt. Shasta) and Washington (Mt. Adams)!

Photo: Kevin Sperl, USFS

What Can I See In...

2 Hours:

Lava Lands Visitor Center and Lava Butte
Due to limited parking atop Lava Butte, 30 minute parking
permits are issued on a first-come, first-served basis. Vehicles
longer than 22 ft. prohibited. See page 6 for more information.

Half-Day:

Above sites plus explore Lava River Cave Allow 2 hours, round trip, to see entire cave. Lava River Cave site gate closes at 4pm. See page 7 for more information.

Full Day:

Above sites plus Lava Cast Forest
Drive gravel road 9720 (9 miles one way). Pick up a brochure
at one of the NNVM visitor centers or download a PDF from
Deschutes National Forest website.

2-3 Days:

See ALL of Newberry National Volcanic Monument!

Buy a 3-Day

for \$10!

Monument Pass

Visit all of the above sites plus the following sites within

Newberry Caldera:

- * Paulina Visitor Center
- * Big Obsidian Flow
- Paulina Falls
- Paulina and East Lakes
- * Drive to the top of Paulina Peak (7,984 ft.) for one of the best views in Oregon!

Useful Contacts

Newberry National Volcanic Monument

Current Information Hotline 541-383-5700 EMERGENCY 911

Newberry National Volcanic Monument

http://sheriff.deschutes.org

www.tripcheck.com

Lava Lands Visitor Center541-593-2421 www.fs.usda.gov/attmain/centraloregon/specialplaces

Oregon Department of Fish & Wildlife800-720-6339 www.dfw.state.or.us

 ODOT Road Conditions
 511

 (toll free in Oregon)
 1-800-977-6368

 (outside Oregon)
 1-503-588-2941





Newberry National Volcanies

3-DAY PASS Consecutive Days

for the greatest good



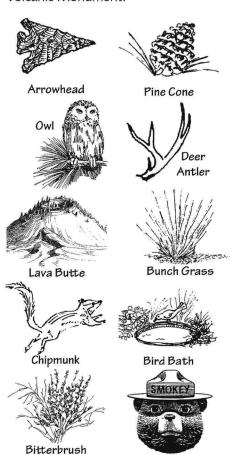
Newberry Fun for Kids

Have Lava Fun at Newberry!

Hey kids, have fun with these activities and learn about the Newberry National Volcanic Monument! Be sure to ask your parents to find out more about Junior Forest Ranger programs at Lava Lands Visitor Center and at the Newberry Caldera.

I Spy, You Spy: Scout It Out!

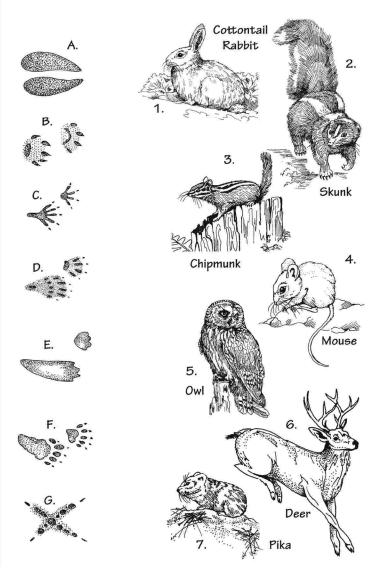
Cross these off as you see them anywhere on the Newberry National Volcanic Monument!



				Wo	rd S	ea:	rch!				
BOBCAT COYOTE EAGLE FOX LIZARD OSPREY PIKA RABBIT SALMON TROUT			CHIPMUNK DEER ELK HAWK LYNX OTTER PORCUPINE RACCOON SKUNK WOLF				COUGAR DUCK FAWN JACK MOUSE OWL PRONGHORN RAVEN SNAKE				
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R	Α	Н	S	K	K	R	E	S	Α	С	R
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Can You Track an Animal?

Draw a line from the animal to the track it leaves.



A=6 Deer, B=7 Pika; C=4 Mouse; D=3 Chipmunk; E=1 Cottontail Rabbit; F=2 Skunk; G=5 Owl

Do your part to protect the Monument

Be sure to **Leave No Trace**. (Bigfoot's been doing it for years!)

Practice these seven principles:

- 1. Know Before You Go
- 2. Choose The Right Path
- 3. Trash Your Trash
- 4. Leave What You Find
- 5. Be Careful With Fire
- 6. Respect Wildlife
- 7. Be Kind To Other Visitors





Scan the above QR code with your smart device to learn more

For the Greener Good

The Deschutes National Forest continues to be an innovative leader. The Forest has reduced fossil fuel usage in operations through E-85 fuel, hybrid and electric vehicles, and 'off-grid facilities' at Lava River Cave. Newberry National Volcanic Monument is also planning to test shuttle options in the Lava Lands area. Construction of a multi-use path in 2014 will connect key Monument attractions and nearby communities. These alternative transportation improvements will provide opportunities for visitors to reduce their own carbon footprint while visiting Newberry. An alternative transportation feasibility study has been initiated to take an even closer look at how the Forest can continue taking positive strides toward a greener good.









RECREATION FEES ARE REQUIRED at designated day use sites on the Deschutes National Forest including sites within Newberry National Volcanic Monument.

Valid Recreation Passes include: National Forest Recreation ePass (\$5), National Forest Recreation Day Pass (\$5), Annual Northwest Forest Pass (\$30), Interagency Annual Pass (\$80), Interagency Senior Pass (\$10), Interagency Access Pass (FREE with documentation), Interagency Military Pass, and the 3-day Monument Pass (\$10). The 3-day Newberry National Volcanic Monument Pass is sold only at Monument Welcome Stations (see below) and is good only for sites within the Monument.

Passes are available at Newberry National Volcanic Monument Welcome Stations (Lava Lands Visitor Center, Lava River Cave, Paulina Visitor Center and Newberry Welcome Station), East Lake Resort (Day Passes only), Forest Service offices throughout Washington and Oregon, and online at: http://www.fs.usda.gov/detail/centraloregon/passes-permits/recreation

Benefits: 95% of the revenue from Recreation Passes stays in the local area for facility maintenance, interpretive services, and ecosystem protection. These passes are your opportunity to care for our public lands and pass on your natural legacy. Thank You!





Newberry National Volcanic Monument is managed through a partnership between the Deschutes National Forest and Discover Your Forest (DYF). DYF is a local nonprofit organization dedicated to promoting the discovery of Deschutes and Ochoco National Forests and Crooked River National Grassland, enriching the experience of visitors, and building community stewardship of these special places today and for generations to come. Proceeds from your donations and our retail operations are used to fund conservation education programs, publications, exhibits, guest speakers, events and other services designed to enhance your appreciation of the area.

Welcome to Newberry National Volcanic Monument!



Lava River Cave - Step City. Photo: Kevin Sperl, USFS

Highlighting the most unique features of the massive Newberry Volcano, the Newberry National Volcanic Monument offers a rich variety of recreational opportunities throughout the seasons and provides protection of a remarkable volcanic landscape.

Lava River Cave Access Improvements

We are very excited to continue upgrades at Lava River Cave. This reconstruction project will replace aging, narrow stair systems and boardwalk segments within the cave. You can expect dramatic improvement to access and to your experiences at Lava River Cave. Please note: During construction Lava River
Cave will close. Call the Monument Hotline at
541-383-5700 to get up-to-date
access information for Lava River
Cave and other Monument sites.

New Accessible Pathway Connects Gems of the Monument

We're also pleased to highlight another major improvement beginning this season. Stemming from Lava Lands and making connection with Benham Falls East Trailhead and the resort community of Sunriver, construction of a 5.5 mile, accessible multi-use paved path is underway! Upon completion of this project in the fall of 2014, Central Oregon visitors and residents will find alternative means to travel between gems of the National Forest and Monument, as well as make a direct connection from Sunriver to the Newberry National Volcanic Monument.

Providing visitors with this opportunity to reduce fossil fuel consumption, while getting physically active will have a positive influence on climate change and an individual's carbon footprint, as well as the wellness of visitors and residents of Central Oregon.

Newberry National Volcanic Monument 25 Year Celebration

A motivated local citizen action group championed the designation of portions of the Newberry Volcanoes complex as a National Volcanic Monument on November 5, 1990. We invite you to return to celebrate 25 years through recreation, art, discovery, and fun starting in 2015.

Leave No Trace

Finally, we ask you to please remember that the choices you and your group make while traveling and camping on public lands can leave an impression. To ensure that impression on the land and those around you is positive, please practice the Leave No Trace techniques highlighted on page 2.

We truly hope that you enjoy this remarkable National Monument!

Scott McBride, Monument Manager Deschutes National Forest

for the greatest good

Be Bear Aware!

Newberry Caldera is not only part of a National Monument but is also a wildlife refuge. Leave no trace and always keep a clean camp to prevent wild animals from obtaining human food and garbage.

- Store all food and food-related items in a closed, hard-sided vehicle or suspended at least 10 ft. off of the ground and 4 ft. from any supporting tree or pole.
- Ice chests, coolers, boxes, cans, tents and soft-sided campers are not bear-resistant!
- Store pet food and livestock feed the same as human food, out of reach from bears and other animals.
- · Deposit all garbage in wildlife-resistant trash containers.
- Remove all food and garbage from your campsite before you leave.
- · Never approach or feed any wildlife.



Black Bear (Ursus americanus) courtesy U.S. Fish and Wildlife Service

Don't be careless with food or garbage when camping. Wild animals, especially bears, may wander through at any time, day or night. Wild animals near a campground are more likely to lose their fear of humans. These animals can often become increasingly aggressive in their attempts to obtain human, pet, and livestock food.



Black Bear tracks

Newberry's Volcanic Glass: **Obsidian**

What Is It?

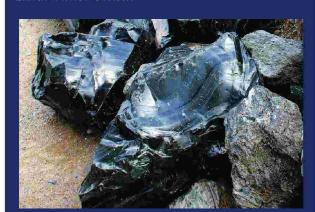
Obsidian is a natural volcanic glass, remarkably similar to the glass in your windows. Unlike most rocks, obsidian is formed with minimum crystal growth and has a disordered internal structure similar to liquid.

Don't Be a Rock Raider!

Why Can't I Take A Piece Home?

Newberry National Volcanic Monument was established by the U.S. Congress on Nov. 5, 1990. As stated in legislation, its purpose is to "preserve and protect for present and future generations Newberry's remarkable geologic landforms." Each of us plays a vital role in caring for our National Monument. Damaging or removing even a small sample of rock degrades the resource and it's illegal (36 CFR 261.9 a and b). Please report any violations you see to a Forest Service ranger.

How Can I See Obsidian and Learn More?
Travel to the Newberry Caldera and hike the Big
Obsidian Flow trail to observe this unique volcanic
rock. To learn more or to obtain a sample of
obsidian, visit the Paulina Visitor Center or Lava
Lands Visitor Center.



Obsidian seen on the Big Obsidian Flow trail. Photo by R. Gentry

NEWBERRY CALDERA

VISIT the Paulina Visitor Center to get maps, information, and shop the Discover Your Forest bookstore. Recreation passes are available for purchase when open. The only Caldera self-service, 24-hour, day-use fee station and information alcove are located in front of the Visitor Center.

WALK the Big Obsidian Flow trail, 1 mile loop trail exploring Oregon's youngest lava flow offering a panoramic view of the caldera rim from the upper overlook. An accessible paved path leads to a steep set of stairs before crossing the rocky, uneven and sharp surface of the Big Obsidian Flow. Due to the sharp obsidian surface, closed toe shoes are recommended and pets are NOT recommended.

VIEW Paulina Falls, a short accessible path leads to the upper overlook and picnic site to view the 80-foot waterfall. Hikers may choose to walk the 1/4 mile one-way switchback trail to the base of the falls for a different perspective.

DRIVE or HIKE to the top of Paulina Peak, the highest point on the rim of Newberry Volcano. An unpaved 31/2 mile road takes vehicles (less than 23 feet in length) to the summit for a view into the Newberry Caldera and surrounding areas. The steep, 2-mile one-way section of Crater Rim Trail begins just after the pavement ends, where it leads hikers to Paulina Peak.

LEARN about the Caldera at a Ranger Program! Inquire at the Visitor Center about program schedules.

PAULINA VISITOR CENTER • OPEN 10AM TO 5PM 2014 SEASON

May 24 - June 9......Weekends September 4 - September 29 Thursday - Monday (self- service information alcove and fee station are open 24 hours)

HELP PROTECT YOUR MONUMENT RESOURCES

- No camping or campfires outside of developed sites in Newberry Caldera Λ 14-night stay limit on the Deschutes National Forest and in Newberry Caldera
- Do not carve, chop, nail, or otherwise damage trees or vegetation. Chainsaws in the campgrounds are prohibited. Limit firewood collection to 'dead and down' wood only and to locations outside of visual distance of developed sites.
- Be 'Bear Aware.' Please store food properly and keep a clean camp.
- Do not use off-highway vehicles within Newberry National Volcanic Monument.
- Control and clean up after pets
 - Do not REMOVE or DAMAGE resources such as Obsidian. Don't be a rock raider!



Camping in Newberry Caldera is managed by Hoodoo Recreation . For reservations and				
information contact Hoodoo Recreation:				
Reservations (7-days): (877) 444-6777				
Information (M-F): 541-338-7869				
www.hoodoo.com				
Lodging and other amenities are available at:				
Paulina Lake Lodge				
541-536-2240				
www.paulinalakelodge.com				

SLEEP IN A VOLCANO!

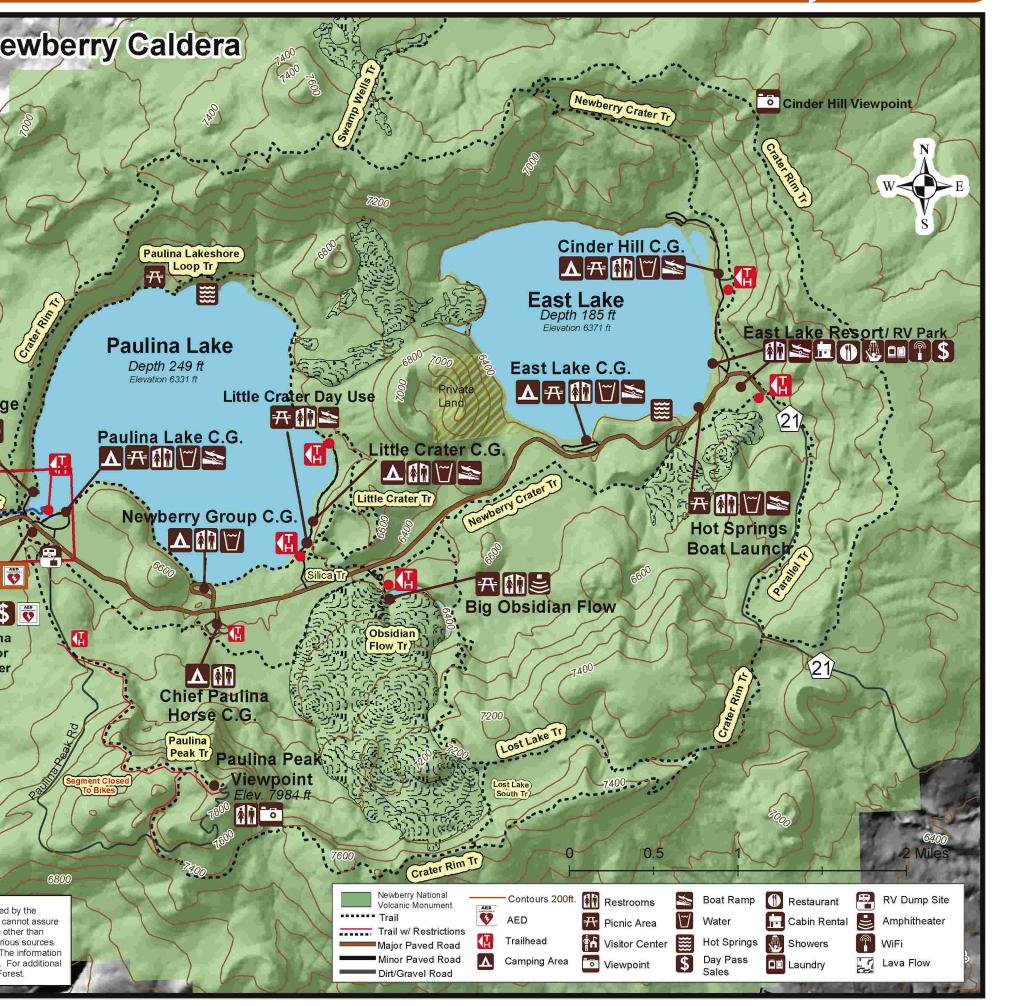
East Lake Resort 541-536-2230 www.eastlakeresort.com

Newberry Area Campgrounds	Price Per Night	Total Sites / Reservable Sites
Prairie	\$14	17 / 0
Ogden Group Camp	\$75	2 / 2
McKay Crossing	\$10	10 / 0
Paulina Lake*	\$18	69 / 39
Newberry Group Camp	\$75-100	3 / 3
Chief Paulina Horse Camp	\$14-18	14 / 14
Little Crater	\$18	49 / 0
East Lake*	\$18	29 / 0
Cinder Hill	\$18	110 / 55

USGS Webcam Photo

^{*}Accessible sites may be available

Newberry Caldera



Caldera Trails	Miles (One Way)	Elevation Change	Use	Difficulty
Parallel Trail #58.3	2	6450-7000 feet	hike, bike, horse	moderate
Paulina Falls Trail #57	0.5	6120-6280 feet	hike only, accessible*	easy
Paulina Lakeshore Loop #55	7.5 (round trip)	6330-6560 feet	hike only, accessible*	moderate
Paulina Peak Trail #57 (spur trail)	0.25	7800-7980 feet	hike only	moderate
Peter Skene Ogden Trail # 56	8.6	4300-6350 feet	hike, horse, bike (uphill only)	moderate
Silica Trail # 58.5	0.5	6350-6365 feet	hike only	easy
Crater Rim Trail #57 (loop)	21 (round trip)	6330-7600 feet	hike,bike,horse	difficult
Obsidian Flow Trail # 58.1	0.5	6330-6850 feet	hike only	moderate
Little Crater Trail # 53 (loop)	1.5 (round trip)	6330-6850 feet	hike only	moderate
Little Crater Tie	0.6	6330-6600 feet	hike only	moderate
Lost Lake Trail #58.2/58.4	3.9 + 0.6 (Lost Lake S.)	7100-7440 feet	hike, bike, horse	difficult
Newberry Crater Trail #3958	9.2	6350-7300 feet	hike, bike, horse	moderate

*Segment of trail is accessible

LAVA LANDS VISITOR CENTER



Lava Butte, as viewed from its lava flow on Trail of the Molten Land at Lava Lands Visitor Center.

OPEN 9AM TO 5PM 2014 SEASON

May 1 - June 9	. Thursday - Monday			
June 12 - September 1	Daily			
September 4 - September 29	. Thursday - Monday			
October 4 - October 12	Weekends			
(NW parking lot at Lava Lands is available when Visitor Center is closed)				



Pets are welcome outside the visitor center, on a leash. Please control and clean up after your pet.

LEARN about volcanoes in the Lawrence A. Chitwood Exhibit Hall and orient yourself with the 3-D topographic model of Newberry National Volcanic Monument.

DRIVE to the top of Lava Butte on a paved road 1 3/4 miles one way. Parking is limited to 10 vehicles (less than 22' long), so please ask for a 30 minute time permit from the Ranger as you arrive. Lava Butte permits are issued on a first-come, first-served basis. On busy days show up early, as there are a limited number of permits available.

HIKE the Lava Butte Rim Trail, an unpaved 1/4 mile loop with a panoramic view of Newberry National Volcanic Monument and the surrounding area. Please stay on the trail.

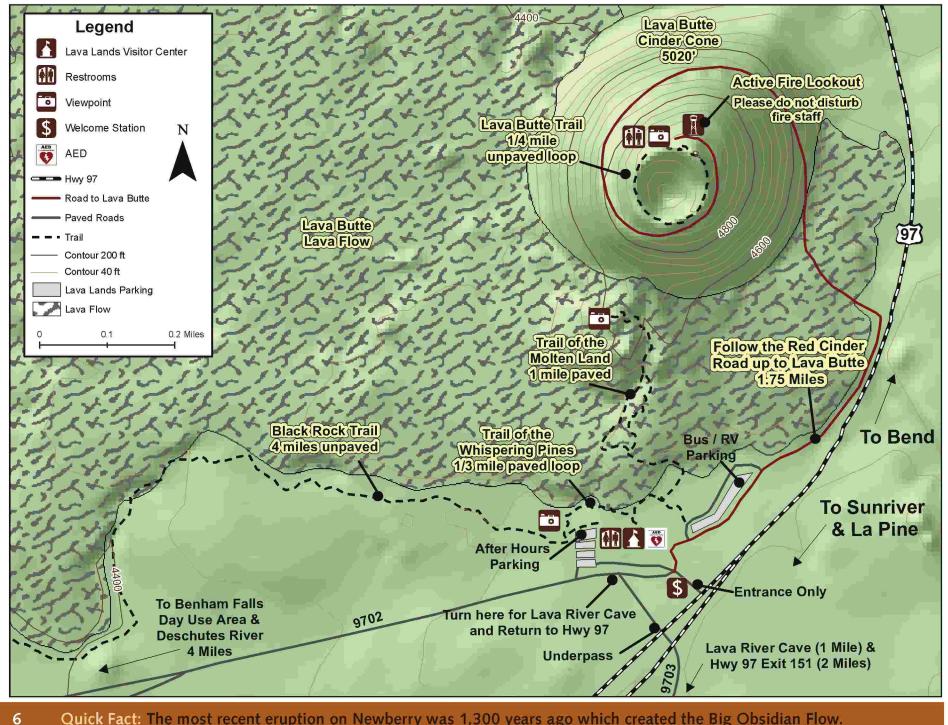
WALK the Trail of the Molten Land, a paved 1 mile loop with a 1/4 mile spur to a view point. Full color interpretive signs provide a self-guided tour. The first 1/3 mile of the trail is accessible.

WALK the Trail of Whispering Pines, a paved 1/3 mile loop. Follow the edge of the Lava Butte flow as it winds through the shady whispering pines. Pick up an Interpretive Botanical Guide to learn about local plants along the way.

SHOP in the Discover Your Forest store for books, maps, snacks, and gifts.

CHECK the Visitor Center front desk for film and ranger program schedule.

Remember, please don't feed the wildlife!



Lava Lands and Lava River Cave

LAVA RIVER CAVE

Discover another world below ground in Oregon's longest lava tube (almost 1 mile each way). You'll walk down over 100 stairs as you slowly descend into the darkness. Discover unique cave features formed by a massive lava flow long ago. A National Forest Recreation Day Pass or other valid Recreation Pass is required to enter. Please bring your pass to the welcome station or purchase one on site, then return the pass to your car and display it in the front windshield.

CAVE TOURS: 3:00PM Daily

Join a ranger guided one-hour tour of Lava River Cave to learn more about cave geology and ecology. Tours are limited to 15 people, reservations are accepted day of tour.



Only certified service dogs are allowed in the cave. There is not enough shade in the parking lot to safely leave pets in vehicles.

CAVE VISITATION GUIDELINES

Cave Bat Health:

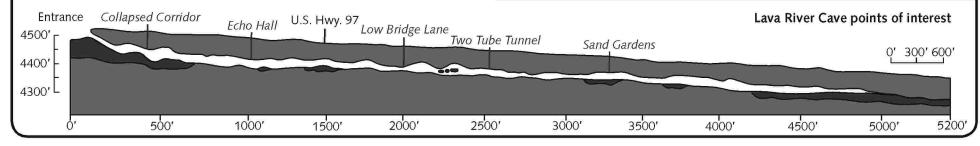
- Visit the Bat Conservation Station at Lava River Cave to help protect Lava River Cave bats and stop the spread of White-nose Syndrome. Get a bat stamp of approval to enter the cave.
- If you have been in a cave or mine outside of Oregon or Washington, no item worn or used in that cave or mine is allowed in Lava River Cave (including clothing, boots, headlamp, cameras, backpack, etc.) Read the article below for more information on White-nose Syndrome.

Comfort and Safety:

- Carry 2 light sources with you into the cave. Only propane lanterns, headlamps, or flashlights please. There is no lighting in the cave, but various light sources are available for rent or sale at cave entrance.
- Wear warm clothing—cave temperature averages 42°F.
- Wear sturdy closed-toe shoes or boots as cave access requires walking on steep stairs and uneven surfaces.
- Watch your head. Child carrier backpacks are not recommended. Ceiling height in the cave is variable with some rock outcroppings.
- Please use restrooms before entering the cave. There are NO toilets in the cave. It is 2 miles round-trip, and average time underground is 2 hours.

Cave Access:

- The crawl space near the end of the cave is CLOSED to visitors to prevent the potential spread of spores that cause White-nose Syndrome.
- It is important to disinfect your clothing, boots, and gear worn in Lava River Cave before going into another cave on or off the Forest. Contact a ranger for more information or read the disinfecting guidelines on the Deschutes National Forest website. See link below.



Protecting Bats at Lava River Cave From White-nose Syndrome

by Julie York, USFS Wildlife Biologist



Healthy long-eared bat. Photo: Diane Probasco, USFS

White-nose Syndrome (WNS) has killed almost 6 million hibernating bats in the Eastern and Midwestern U.S. since 2006. It now occurs in 25 states and 5 Canadian provinces.

WNS is caused by a cold-loving fungus that thrives in caves and mines. Named for the white powdery appearance around bats' noses, the fungus may also occur on ears, wings, and forearms or may not be visible at all. The fungus agitates bats, awakening them during winter hibernation. Bats use their water and fat reserves too quickly, reducing their chance for surviving winter. The fungus primarily spreads from bat-to-bat contact but may also be spread by bringing contaminated human clothing or equipment from one cave or mine to another.

There are no known health risk to humans from WNS. However, the impacts to humans from the loss of bats may be devastating. Bats play a crucial role in the health of our ecosystem by consuming many insects, including pest

species. Nationally, scientists estimate annual economic losses in the billions of dollars due to an increase in insect pests as a result of the high mortality of bats from WNS and wind powered turbines.

WNS is not known to occur west of the Rocky Mountains, so help us prevent or slow its spread by doing your part to keep this disease out of caves in Oregon.

For more information about white-nose Syndrome, scan this QR code with your smart device or go to:

www.whitenosesyndrome.org

For information about other caves on the Deschutes National Forest, please go to Lava Lands Visitor Center or Paulina Visitor Center.

Pika: Living on the Lava

By Karen Gentry, Discover Your Forest Education Program Coordinator

What small mammal living on the lava is more often heard than seen? The American Pika, a small squeaky relative of the rabbit. Their loud sharp, shrill cry can be heard on rare occasions as you travel along the Trail of Molten Land. It will not only take a keen ear to hear the "Eeeeep" of a pika protecting their territory and food cache from an invader, but it will also take a sharp eye to catch a glimpse of this reclusive critter on the lava.

Adult Pikas weigh about 4-6 oz., with gray brown fur, rounded ears and no tail. Pika distribution on Newberry National Volcanic Monument is not precisely known, however,

they have been documented on lava flows from the summit of Paulina Peak, flows directly adjacent to the Deschutes River at Dillon Falls, and on the Lava Butte flow.

Pika are thermally sensitive and do not tolerate temperatures over 80 °F well. In the heat of the day, pikas will retreat to their lava dens, which stay at a fairly constant temperature of 40–60 °F.

So, what do they do the rest of the day? These industrious little rock rabbits are foraging—constantly gathering food from the surrounding forest and lava flows—clipping, snipping, and gathering plant material creating "hay piles" of vegetation. At low elevations, Pika are active year round on the Monument. Their feeding behaviors on the lava flows shift seasonally, feeding early—midsummer on forbs such as Penstemon, Ocean Spray, Bitterbrush, Wax Currant, and Snowbrush. They have even been documented nibbling Ponderosa Pine needles during the winter.

As you hike along the lava flows at Newberry National Volcanic Monument, remember this cute little rock rabbit could be watching you.



Photo: Kim Boddie

Newberry National Volcanic Monument

Current Information - Monument Hotline: 541-383-5700

